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NEW DISCOVERIES



ALL OVER THE EARTH

How DIVORCES Start on the HONEYMOON

By WILLIAM LEE HOWARD, M.D.

MANY a divorce has its start from the honeymoon days. Neither wife nor husband realizes it at the time. Neither do they nor their friends when in a few years separation is the only way out of the misery.

The cause for many unhappy marriages can be prevented—it is simple. Disgust, unreasonable demands, quarrels, divorce, have their origin in the injurious custom of society tiring out and exhausting the nervous vitality of the woman up to her wedding day and weeks beyond. Under these circumstances she cannot be herself and sees her husband in a wrong light. He also finds an irritable wife where he expected a sweet-tempered woman. And so she would be if matters were understood.

A young woman who has to spend months or weeks at dressmakers, outfitters, rushing here and running there, attending receptions, giving luncheons and dancing at night, all is a farewell to her maidenhood. It is usually at the end just fit for the rest cure or a sanitarium.

Under these conditions the nervous energy of a young woman is exhausted. And this at a time when

LITTLE THINGS Which Wreck the BRIDE'S NERVES and Make Married Life a MISERY

she needs every bit of it. She has been constantly stimulated by unusual excitement and kept keyed up to the highest pitch. This would not necessarily be harmful, perhaps it is natural, if it ended there. But what follows up this exhausted and excited state? The commencement of divorce. Yes; just that. Why? Because now the bride, a tired and relaxed nervous woman, is rushed off travelling. She is on the go like a one-night theatrical woman.

Her business-man husband has scheduled a route which must be covered in just so many days—like one of his travelling men. The bride is often dragged to cities and sights of no interest to her. When she really needs hours or days of rest off she must go to catch a train or visit some curious friends of her husband. And so it goes. Of course all her inner nature rebels while she externally tries to fight it out. All sorts and kinds of food—hotel stuff—is eaten but undigested. She cannot possibly see anything but misery, and illusions show up in distressing colors. She is physically ill; her husband thinks she is cross and unamiable. This is the beginning of future misunderstandings.

Now there is a border line of health for every nervous system. Once cross this line and one loses control of impulses, temper and all one's good qualities. Under these conditions

nothing is right; nothing can be made right. A little error or temporary disgust grows to be momentous—sticks in the memory. But even here the marriage could be made successful if on the return of the tired bride she had opportunities for rest.

But she does not—as a rule. Her husband turns over to her the house and all its cares. If the woman is unused to these worries it further aggravates her condition and she finally hates with disgust and loathing, everything around her. She suffers for a time in silence. You see she is over the border line of health. She is to be pitied, helped; given a long rest. But instead she receives some mild blame. Indifference

enters the house, disgust remains, an atmosphere of coolness blows between the couple and the end is in sight.

The real preparation for marriage should be mental and physical rest. At no other time in life is mental poise and nervous stability so necessary as in the first months of married life. With control of self, rested nerves, when the couple quietly seek some calm retreat for the honeymoon, love grows strong, health is retained; and man and wife have time and peace to understand each other.

Happy the couple whose circumstances compel them to avoid months of social and dress excitement and who can go hand in hand to their little flat or cottage and rest in mutual content.

This is one of the reasons why there are fewer divorces among the working classes—the classes which count in civilization.

Another reason is that marriage in the ranks of the working millions establishes at the start a partnership of practical as well as sentimental interests. During their courtship the young couple have planned together the material side of their united future—how each will bear a full share in the partnership task of winning a home, of fighting life's stern battles.

Honey-moon joys merge naturally and wholesomely into the joy of working together, cheerfully and courageously to meet the hard problems of life. She is not a petted, helpless dependant, an ignorant and silent partner with respect to his work-day affairs. They stand shoulder to shoulder, both workers, striving for the same object. Accordingly, their companionship does not hang upon one slender thread of emotion, but has a hundred common interests to keep it close and congenial. No shadow of divorce disturbs men and women thus mated.



SIX REASONS WHY MANY MARRIAGES PROVE FAILURES. A—Worrisome Sessions with the Dress-maker. B—Over-Eating at Wedding Breakfasts and on the Honeymoon. C—The Nervous Strain of the Fashionable Wedding. D—Long Fatiguing Honeymoon Trips. E—The Strain of "Getting Settled" in the New House. F—The Final Quarrel When Overwrought Nerves Give Way.

ELECTRIC Shocks That Out-Speed the NERVES

THE advances in the understanding of the effect of electricity upon health are being greatly assisted by recent work on high tension currents. It is now seen that it is possible to give an electric shock of such immense voltage that it is entirely painless to the patient; whereas, a shock of only half the force would set up acute nervous vibration and twitchings. The cause of this apparent paradox is that a high voltage current can be raised so high by a step-up transformer that its speed of vibration is faster than the nerves can register in the terms of pain, and the feeling of pressure is easily bearable.

The nerve fibers, like all sensitive parts of the body, have a range of sensitiveness. Thus, for example, the vocal cords have a certain register for sound, which runs lower in the male and higher in the female. There are numberless sounds both lower and higher than these notes, but we cannot produce them. Our ear has a register of about 7,000 notes in the organs of Corti, which vibrate in sympathy with the vibrations of the membrane of the drum of the ear. There are numberless notes below and above these, but

the ear cannot register them. The eye perceives colors within a certain scale, but at both ends of the line the ultra-violet and the infra-red are entirely beyond our vision. So, likewise, vibrations may be directed to the nerves which exceed their register.

The working out of this in the line of electro-therapy promises a great deal of help in the art of medicine. Electricity has a wonderful power as an assistant to healing processes. In a large number of cases smaller doses of drugs can be given if electric vibration is also being administered, for the reason that the electricity will quicken the ability of the tissues to take up the essential part of the drug. Iron, for example, is one such. Iron is a necessary part of the blood, and without enough iron one cannot be in good health, but many anemic girls lack iron in the blood, not because they are not taking the very best tonics that the doctors can devise, but because their tissues are not absorbing it. This electric current might help them to do. This working power of the tissues, the metabolism of the body, are greatly increased by static electricity, and there is every reason to hope that the use of high tension currents may be the means of curing diseases which so far have remained stubbornly resistant to medical skill.

When the BABY CRIES It MEANS NOTHING

OF course most mothers will say immediately that "I can tell what Baby means, every time," but they won't be able to prove it. A well-known authority on children's diseases has made an exhaustive study of the cries of infants less than three months old, and he declares positively that it is impossible to analyze the vocal tones of a baby's rowl and determine whether it is a cry of pain, a cry of hunger or a cry from temper.

"During the first few months of infants' existence," says Dr. Eric Pritchard, an eminent authority in London, "their only method of reflex response (to any kind of pain or disturbance) is to cry—an often expressionless cry—to flex their arms and legs on the body and to tighten up the abdominal muscles." This is no more a sign of a stomach-ache, he goes on to say, than it is of an ear-ache or an unclasped safety pin in the back.

Healthy babies should not cry. It is pointed out, unless they have been subjected to something which has caused a protective reflex. If an infant is put into a bath that is too hot, it will cry, for since it cannot get out of the bath, this is the only protective action it possesses. Ever after, in many cases, the infant will cry whenever put into a bath, no matter what the temperature of the water. It is absolutely impossible, it is declared, to distinguish between these two cries, one of which was from pain, and the other, which is merely a habitual reflex.

The baby, before that art of the brain develops which deals with the perception and understanding of sensations, is almost in the same state as a grown-up person in a hypnotic trance. Often within two or three months after birth infants have developed quite complicated habits absolutely without consciousness or any form of judgment.

One of the most important things in the care of a baby is to analyze its habits and find out, if possible, what event or stimulus it was that rare and unusual—for a baby to possess slight vocal differences in cries due to pain from a new sensation or from sug-

gestion, and in these cases the mother would be the quickest to notice them.

As soon as the perceptions begin to come, however, a child's crying takes on an entirely different quality, emotional overtones creep into the voice, and the walls are accompanied by facial expressions. After six months, a child's cries run through several phases of meaning, and in these the mother is almost always a better diagnostician than the doctor.

But even then, the general pain-sense of the baby is but imperfectly developed. It is aware of pain, but does not know just where; one must wait almost another three months for that. At the age of one year a baby is well advanced to development and by gesture can and does indicate the seat of trouble.

FEW changes are more remarkable than the increase in alertness which comes to the country boy when he begins life in the city, and few contrasts are more striking than the difference in the quickness of mind between a street urchin and a country child. Many factors go to make up this difference, such as wider opportunities, constant contact with others, and a keener competition, but these are not enough to explain the wonderful brain development of the city child and the city man and woman.

More and more we are becoming awake to the influence of electricity upon human tissues, and this to such an extent that the electric current is widely used in curing certain weaknesses of the body. If, then, electricity is so potent in giving a higher sensitiveness to such matters as tissues, it would be surprising if so sensitive a part as the brain were not particularly responsive to the electric current.

The vibrations of electricity fill the air. Low-power and high-power currents surround city dwellers on all sides. Telephone and telegraph wires run overhead or underfoot in every direction. Trolley wires, carrying heavy voltages, are strung along miles of streets a few blocks apart. Railroads running into the large cities are being electrified, and there are thousands of miles of the "deadly third rail." Subways and

How the STARS and the MOON Gave Us Our ALPHABET

THE alphabet has never until now been explained satisfactorily to scholars, much less to the laity. The time-worn suggestions that the first letter in the alphabet, called Aleph in the Phoenician and Hebrew, means an ox seemed all right until the letter was compared with a real ox, and then it proved unsatisfactory, to say the least. That the second letter, Beth, meant a house, looked a little more plausible, but even this was not clear enough to satisfy any one who wanted to know the truth.

It has remained for Professor Eduard Stucken, a well-known German scholar, to show that the real origin of the alphabet is astronomical, and this he has done in a work just published, proving his point most clearly and convincingly. There can now be no doubt that the first letters were derived from the stars in the heavens, and even their order was fixed by the course of the moon through the skies.

The ancient Babylonians were great astronomers, and knew the constellations as well as any modern astronomer. Upon their clay tablets are to be found figures of Cancer, the Crab, Capricornus, the Goat and the other groups of stars, even though they saw some of them differently and grouped them variously.

It is generally agreed by scholars that the first evidence we have of a real alphabet is that of the Phoenicians or Hebrews, about 1100 B. C., and the earliest use of this alphabet known to us is in the famous Moabite Stone. Here the letters are those common to

the early Canaanites, including the Hebrews, and differ greatly from what is known as Hebrew, or the square writing as introduced by Ezra, according to the Bible, at least six centuries after the engraving of the Moabite Stone.

It should be remembered that the Babylonians, to whom the division of time, as still used by us, into twelve hours of sixty minutes and sixty seconds has been traced, were worshippers of the moon. We know that the twelvefold division of the Zodiac, as still used by astronomers, was plainly suggested by the occurrence of twelve full moons in the successive parts of it in the course of a year. The Babylonians imagined that the solar Bull (A) had drawn a great furrow across the heavens (the path of the sun through the stars), and this was divided into twelve parts by the full moons.

Astronomers who have studied the Babylonian system see that Taurus held the leading position among the constellations, and this would substantiate the position of Dr. Stucken in explaining why Aleph, the Bull, is the first letter of the alphabet. It is also one of the ancient legends that the human race came into existence under Taurus, and the Jewish New Year, held to be the anniversary of the Creation, is in Tishri, plainly connected with this Zodiacal sign.

Thus Professor Stucken proves that the alphabet is of astronomical origin, showing that the order of the alphabet, and especially that A is the first letter, can be accounted for only upon the ground of these Babylonian ideas.

The other great difficulty which might occur to some of us is why then are there twenty-two letters in the ancient alphabet and not twelve to correspond to the twelve full moons? This is answered very simply. In

the marking of the various "moon stations" various positions of the stars were also noted, seeming to make fiery characters in the heavens, afterward to be used as the symbols of written language. In this way ten additional characters were added to our Zodiacal signs, as the "moon stations," afterward utilized for the purpose of the alphabet. At first these were astronomical symbols, but being used constantly in a fixed order they really made up a series of well-known symbols, each with a special significance and sound, which easily lent themselves to the making of the sounds by which words could be expressed in writing.

It is possible though for the modern student of the Bible to come a little closer to a Babylonian idea connected with the letters if he will take up the book of Job and turn to those puzzling chapters xxxviii, xxxix and xl, which have been the stumbling block to all scholars up to our time. Professor Stucken finds the letters of the alphabet, from B to the end, explained in their astronomical character, and in their order, in these chapters. The letter A is covered in a general way by the "measuring of the earth"—the drawing of the great heavenly furrow by Taurus, the Bull, as explained above.

Job, xxxviii, 6, "Whereupon are the foundations thereof fastened?" (who laid the corner-stone thereof) plainly refers to the building of a house, and may be set down as applying to Beth of the alphabet, translated as house. In verses 8 to 11—"Who shut up the sea with doors, when it brake forth, and said, Hitherto shalt thou come, but no further, and here shalt thy proud waves be stayed?"—the sea has a direct reference to the third letter, the symbol for the Pleiades, having to do with the rains.

Similar phrases in other verses furnish clues to the origin of the rest of the ancient alphabet.

YOU MIGHT TRY...

A Cure for Corns.

DIP a piece of soft linen rag in turpentine and wrap it around the toe on which the corn is; change this night and morning for a few days. The relief is instantaneous and the corn will disappear.

For the Piano.

PLACE a small bag of unslacked lime inside the piano; it will keep the springs and metal from rusting.

To Cure Bee Stings.

A PHYSICIAN advises that the best remedy for bee stings is to apply oil of cinnamon with a small brush. It will slightly blister, but immediately draw out the poison.

Removing Grease.

EUCALYPTUS OIL will remove grease or oil from any fabric, no matter how delicate, and best results are obtained by gently sponging the soiled parts.

Cleaning Wall Paper.

TO remove grease spots from wallpaper, dip a piece of flannel in spirits of wine and rub the spot very gently.

DUST EVERYWHERE, Even In SNOW and the CLOUDS

PROBABLY every fleecy cloud, or black snow or rain cloud, for that matter, that you see drifting between you and the blue of the sky contains considerable dust. At one time everything that came from the sky in the way of dust particles and other falling things was believed to come from "heaven."

Later it was believed dirt in small particles was taken up into the clouds in whirlwinds and some of it held in the vapors of the clouds for a while. This was partly correct. Still later it was claimed that the cloud dust was really of cosmic origin, coming from meteorites, really a sort of star dust. As a matter of fact, clouds get dust both from below and above.

Our mammoth factory chimneys belching forth great masses of smoke supply far more

dust to the clouds than one would imagine. It has been claimed that a single puff of cigarette smoke contains four hundred millions of dust particles. If this is true, it would be beyond human possibility to imagine in figures the number of dust particles that are driven forcibly skyward every twenty-four hours through a factory chimney.

Cyclones, hurricanes and other strong winds take quantities of the lighter or more minute dust particles so high into the sky that they come in contact with the clouds, or masses of vapor, and are held in that dampness either until the heat of the sun dissipates some of these vapors and releases the dust to flutter downward or is brought down by snow and rain.

Over the broad expanses of virgin snow in Greenland quantities of dust are found. Scientific examinations of this dust show it to be matter not usual to the earth, but of common substances found in meteorites; hence it is believed to be cosmic dust. Inasmuch as many meteorites fall to earth, it is not unusual that this cosmic dust, or "star dust," gets into the gravity belt of the earth and so scatters down, some directly to the earth and some to clouds and brought thus to earth.

No doubt this dust is all over the earth, but it is so minute that it would be difficult to find it on bare ground. On the snows of Greenland it is safe to assume that this dust was not blown there from other countries. A little might come from earth to clouds and thence to the snows, but the presence of this dust which the spectroscopic shows to be of cosmic matter proves that clouds get dust from the earth and from the cosmic bodies.

Among the constituents of dust floating in the air are lead, silver, copper, rubidium, gallium, indium, thallium, nickel, manganese, and so forth. Many of these can be traced to their sources in factory chimneys and flues. Dust from clouds, collected either by itself or in hail, snow, sleet, or rain, exhibits a regularity of composition not seen in other varieties of dust. Iron, nickel, calcium, copper, potassium and sodium always appear in it in about the same proportions. Some dust that fell some years ago near Dublin resembled meteorites in its composition, was attracted by a magnet and seemed to be of cosmic origin.



Some of the Electrical Influences Which Make City People More Alert Than Their Country Cousins.

Why a CITY MAN Is Smarter Than His COUNTRY COUSIN

elevated railroads in the cities add their share. A large percentage of the houses of a city have electric light, and a still larger proportion have telephones. It is to be remembered, moreover, that a certain amount of electric current is constantly lost, is being thrown out into the air all the time. The greatest difficulty of long-distance transmission of electric power is the leaking of the current. And if there is thus a constant leakage into the air, the air must be filled with the energy lost. In addition to this, wireless stations are projecting constantly into the air vibrations of incredible power, strong enough to cross the Atlantic on occasion, and always strong enough to carry hundreds of miles. We are submitted to a perpetual electrical bombardment.

To what extent these electrical radiations possess true radio-activity and can pierce the tissues of the body as ordinary sunlight pierces clear glass, it is difficult to say, but it is definitely known that they do possess a certain amount of radio-activity. It has been suspected that cancer-growth cells may be related—perhaps remotely—to constant exposure to these currents. Fortunately, however, the brain is enclosed in a heavy bony case, the skull, and bone is resistant to much radio-activity. It may well be that the bony protection of the skull only permits such a proportion of the electrical radio-active waves to pass through to the brain which are stimulating, filtering out those which are destructive, so that the keen vigor of city life may be traced to the vibratory energy in urban atmosphere.